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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/864,476	05/24/2001	Indra Laksono	VIXS 008	2994

34280 7590 06/14/2006

TIMOTHY W. MARKISON
VIXS, INC.
P.O.BOX 160727
AUSTIN, TX 78736

EXAMINER

BROWN, RUEBEN M

ART UNIT	PAPER NUMBER
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2623

DATE MAILED: 06/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/864,476

Applicant(s)

LAKSONO, INDRA

Examiner

Reuben M. Brown

Art Unit

2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 3/8/06 have been fully considered but they are not persuasive. With respect to the independent claims, applicant argues, 'Diefes does not need the system of Yu to queue requests of multimedia content or to monitor the available capacity. In Diefes, the multimedia content is already broadcast to the subscriber's converter box. For this reason, Applicant believes that the combination of Diefes and Yu is improper'.

But examiner points out that the Diefes teaches, "receiving a client request for a multimedia system service from on of a plurality of clients, determining whether the client request is valid". Diefes then delivers the requested multimedia data to the validated client. However, Diefes does not discuss the well-known problem of whether or not the system has sufficient resources to fulfill the client's request. Nevertheless, as shown in the previous rejection, Yu is concerned with this issue. Yu explicitly teaches checking an available stream capacity, and if there is no stream capacity, exiting from the scheduler, (col. 5, lines 18-67 thru col. 6, lines 1-2). On the other hand, if there is available stream capacity, the request is scheduled.

The question of the validity of a client (which is taught by Diefes) is a separate issue from whether the system has sufficient resources to meet the client's request. This feature is clearly met by the disclosure of Yu. Likewise, Yu does not discuss the problem of validation/authentication of authorized clients. However as pointed out above, Diefes discloses that subject matter.

Regarding applicant's arguments with respect to claims 12 & 30, examiner notes that the claims do not define the scope of "best match". Therefore the claimed, "allocating best match resources of the available resources", is broad enough to read on the disclosure of Yu, (col. 6, lines 10-50). In particular, Yu teaches that each client request is assigned a certain wait tolerance, which is prioritized based on H-queue or C-queue. The server attempts to serve each as near as possible to its wait tolerance, while also balancing the constraint of attempting to serve all of the requests from the same movie from the same stream, col. 6, lines 40-60.

In this instance, "best match" reads on whichever stream selected that facilitates the requested video to the subscriber, given the constraints of the scheduling algorithm.

Regarding applicant's arguments with respect to claims 3 & 21, applicant argues that Diefes does not read on "parental control". Examiner agrees that Diefes does not explicitly use the term, "parental control". Nevertheless, since it is the parent our main subscriber that determines which channels will be accessed, at least by signing-up for the channel(s) & paying the required fee, the invention reads on the claimed, "parental control".

Regarding applicant's arguments with respect to claims 5, 15, 23 & 33, applicant disagrees with the cited portion of Yu as teaching the claimed subject matter. However, examiner points out that the claimed, "determining whether a tuning module has capacity to accommodate a client request", is broad enough to read on determining whether whatever mechanism the server uses to specifically transmit the requested program to the client, has enough capacity. Thus, the disclosure of Yu, 'scheduler determines if there is any stream capacity available in the server', inherently includes a tuning or transmission mechanism.

Regarding claims 6 & 24 applicant argues that Yu does not teach the claimed subject matter. However, examiner points out that Yu teaches that the system informs at least the C-queue viewers of the expected wait time, which means that the system is currently able to supply the requested movie. It is inherent that the instant viewer is enabled to request another movie, since Yu is directed to a VOD system, which reads on the claimed subject matter.

Regarding claims 17 & 35, applicant request prior art references to support the Official Notice taken. To that end, examiner provides two references. First, Dixon teaches a user requested video transmission system that maintains an Asset Table 40, of assets (i.e., disks) and their capabilities. For instance, for each disk, the system determines the total BW, available BW, total size and available size, (Fig. 2; col. 3, lines 1-40). This disclosure reads on the claimed, 'maintaining a listing of capability of resource capabilities'.

Art Unit: 2623

Secondly, Yurt teaches transmitting a requested video program to a subscriber in analog or digital, compressed or uncompressed form, depending on the capabilities of the subscriber's terminal, see col. 4, lines 35-67, which reads on 'determining a type of resource needed o support the client request'. It is noted that Yu, Dixon (Abstract) & Yurt (col. 15, lines 42-55) are all concerned with matching subscribers in groups which conserves the resources of eth system, which reads on the claimed "best match".

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3, 5-13, 15-21, 23-31 & 33-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Diefes, (U.S. Pat # 6,067,440), in view of Yu, (U.S. Pat # 5,561,456).

Considering claim 1, the claimed method for managing resources in a multimedia system, comprising:

‘receiving a client request for a multimedia system service from one of a plurality of clients’ and determining whether the client request is valid’, is met by the teaching of Diefes, which discloses that upon receiving a subscriber’s request for a pay-per-view movie or channel, the headend controller 16 configures the appropriate subscriber privilege information, and transmits it to the addressable switch 18, based on this information, the instant requesting subscriber is accepted or denied access to the requested movie or channel, see col. 7, lines 25-40; col. 11, lines 1-15 & col. 11, lines 55-67 thru col. 12, lines 1-10.

As for the further claimed feature of ‘when the client request is valid, determining whether the multimedia system has sufficient resources to fulfill the client request’, Diefes merely discloses providing access to the requested content, depending upon whether the client was determined to be valid. However Yu, which is also directed to video on demand, teaches detecting whether the system has available stream capacity to meet one or more client(s) requests, see col. 5, lines 1-25. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify Diefes with the technology of detecting a streams transmission capability, for the desirable improvement of more efficiently controlling the distribution system, according to the teachings of Yu.

The additional claimed subject matter of; ‘when the multimedia system has sufficient resources, then allocating at least some of the resources to the one or more clients’, is met by the disclosure of Yu, which teaches that when stream capacity is available, then providing the request to the client, col. 5, lines 10-37.

Considering claims 2, 13, 20 & 31, the claimed 'determining whether the program is restricted from one of the clients, and if so denying the client request'. Is met by the discussion in Diefes that the headend controller 16 provides subscriber privilege information to the addressable switch 28, regarding the authorization level of subscriber(s), with respect to programming, see col. 7, lines 29-45; col. 11, lines 5-15 & col. 11, lines 55-67 thru col. 12, lines 1-10.

Considering claims 3 & 21, since Diefes is also directed to restricting access to adult material, the claimed feature of 'parental control' is met by the reference, col. 7, lines 4-25.

Considering claims 5, 15, 23 & 33, the claimed feature of 'determining whether a tuning module has the capacity to accommodate a client request', is met by the discussion in Yu, that the scheduler determines if there is any stream capacity available on the server, col. 5, lines 60-67.

Considering claims 6 & 24, the claimed feature of when the system does not have sufficient resources to fulfill a client's request, 'determining whether alternate multimedia service is available by querying one of the plurality of clients to select alternative multimedia service', Yu teaches that the scheduler can inform the user of an estimated wait time for a particular movie. Viewers in Yu have the option of joining a H-queue, i.e., 'hot list' or C-queue, i.e., cold-list.

Considering claims 7, 16, 25 & 34, Yu teaches that the viewers in the H-queue, have priority over viewers in the C-queue, and the viewer(s) that have waited the longest have priority over those with a shorter wait, see col. 6, lines 41-67, thru col. 7, lines 1-12.

Considering claims 8-11, 18, 26-29 & 36, Yu teaches that the system checks to see if video streams allocated to the C-queue are available, (col. 7, lines 1-21) and if so, they may be used to meet the requirements of the H-queue, which reads on the claimed, optimal resource allocation’.

Considering claim 12, the claimed method of managing resources in a multimedia system, comprises steps that substantially correspond with subject matter mentioned above in the rejection of claim 1, and is likewise treated. The additionally claimed, “allocating best match resources of the available resources”, is broad enough to read on the disclosure of Yu, (col. 6, lines 10-50). In particular, Yu teaches that each client request is assigned a certain wait tolerance, which is prioritized based on H-queue or C-queue. The server attempts to serve each as near as possible to its wait tolerance, while also balancing the constraint of attempting to serve all of the requests from the same movie from the same stream, col. 6, lines 40-60.

In this instance, “best match” reads on whichever stream selected that facilitates the requested video to the subscriber, given the constraints of the scheduling algorithm.

Considering claims 17 & 35, regarding the claimed best match comprising; ‘maintaining a listing of resource capabilities’, Yu teaches that CPU executes various programs to operate the server 30, but does not explicitly state that a list of items was produced. Official Notice is taken that at the time the invention was made, it was well known in the art to have a list of components. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify the combination of Defies and Yu, with the known feature of a catalog of components, at least for the desirable advantage of more easily managing the instant components.

‘determining a type of resource needed to support the client request’, and ‘performing best match analysis to identify the best match of the plurality of resources, based on the capabilities’, reads on the disclosure in Yu that memory buffers 105 may be used for play/pause interaction with a client, rather than the disks 102, which are used for streaming a movie to a plurality of clients, see col. 4, lines 28-50 & col. 7, lines 21-40.

Considering claims 19 & 30, the claimed apparatus for managing resources in a multimedia system, comprising elements that correspond with subject matter mentioned above in the rejection of claims 1 & 12, are likewise treated. Claims 19 & 30 additionally recite a ‘processing module’ and a ‘memory’ operably coupled to the processing module, such that the memory includes operational instructions that cause the processing module to perform the steps previously recited in the above claims 1 & 12.

Art Unit: 2623

The claimed 'processing module' reads on the program code, disclosed in Yu, whereas the 'memory' is met by the disks in Yu, which are disclosed for storing program code for executing processes that operate the video server 30, see col. 4, lines 15-50.

4. Claims 4, 14, 22 & 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Diefes & Yu, and further in view Russell, (U.S. Pat # 4,890,322).

Considering claims 4, 14, 22 & 32, Diefes does not discuss determining when a subscriber places a request for a program. However, Russell, which is in the same field of endeavor, teaches that when ordering a movie, a request must be made within a predetermined time period, col. 5, lines 15-35. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify Diefes with the feature of allowing a subscriber to order a movie within a specified time period, for the desirable advantage of allowing the system more effectively use its resources, for instance adjusting the time period depending upon the order requests for a particular movie, at a particular time, as taught by Russell, see col. 7, lines 10-20.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- A) Dixon Teaches maintain asset tables that lists the capabilities of the disks.
- B) Yurt Teaches transmitting data in a format usable by the subscriber.
- C) Clark Teaches maintaining knowledge of status of assets, (col. 4, lines 37-66.

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Art Unit: 2623

Any response to this action should be mailed to:

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

or faxed to:

(571) 273-8300, (for formal communications intended for entry)

Or:

(571) 273-7290 (for informal or draft communications, please label
"PROPOSED" or "DRAFT")

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Reuben M. Brown whose telephone number is (571) 272-7290. The examiner can normally be reached on M-F (9:00-6:00), First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Kelley can be reached on (571) 272-7331. The fax phone numbers for the organization where this application or proceeding is assigned is (571) 273-8300 for regular communications and After Final communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Reuben M. Brown


CHRISTOPHER GRANT
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600